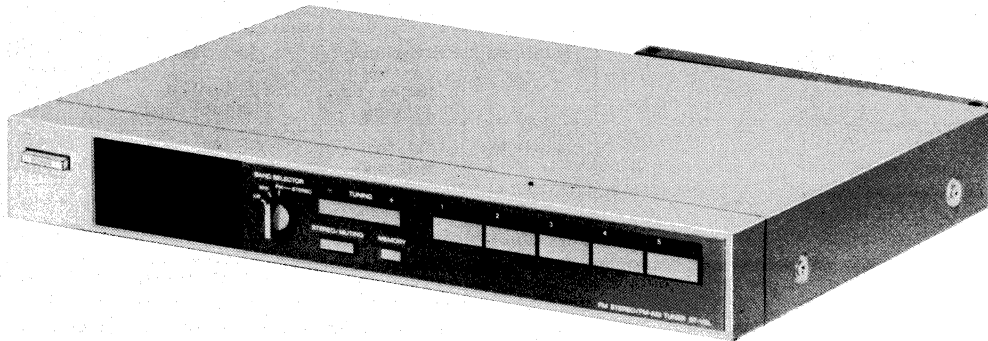


# ST-V3L

*AEP Model  
UK Model*



## FM STEREO/FM-AM TUNER

### GENERAL

- System:** PLL quartz-locked digital synthesizer system  
FM stereo, FM/AM superheterodyne tuner
- Power Requirements:** AEP model: 220 V ac (or 240 V ac adjustable  
by authorized Sony personnel), 50/60 Hz  
UK model: 240 V ac (or 220 V ac adjustable  
by authorized Sony personnel), 50 Hz  
Memory back-up power: 3 V dc, two batteries,  
IEC designation R6 (size AA)  
Battery life: approx. 1 year with Sony  
SUM-3(NS) New Super batteries
- Power Consumption:** 8 watts
- Dimensions:** Approx. 355(w) x 55(h) x 270(d) mm  
14(w) x 2 $\frac{1}{4}$ (h) x 10 $\frac{3}{4}$ (d) inches  
including projecting parts and controls
- Weight:** Approx. 2.2 kg, 4 lbs 15 oz net  
Approx. 2.8 kg, 6 lbs 3 oz in shipping carton

### FM TUNER SECTION

- Tuning Range:** 87.5 MHz – 108 MHz
- Antenna Terminals:** 300  $\Omega$ , balanced  
75  $\Omega$ , unbalanced  
ST-V3L available in West Germany only:  
75  $\Omega$ , IEC connector
- Intermediate Frequency:** 10.7 MHz

### SPECIFICATIONS

|                                 | ST-V3L<br>(at 40 kHz deviation)                                                  |
|---------------------------------|----------------------------------------------------------------------------------|
| Sensitivity                     | at 46 dB quieting<br>17.3 dBf, 4 $\mu$ V (mono)<br>38.3 dBf, 45 $\mu$ V (stereo) |
| Usable Sensitivity              | 10.3 dBf, 1.8 $\mu$ V (IHF)<br>1.7 $\mu$ V (S/N = 26 dB)                         |
| Signal-to-noise Ratio           | 76 dB (mono)<br>71 dB (stereo)                                                   |
| Harmonic Distortion<br>at 1 kHz | 0.15 % (mono)<br>0.3 % (stereo)                                                  |
| IM Distortion                   | 0.15 % (mono)<br>0.3 % (stereo)                                                  |
| Separation<br>at 1 kHz          | 45 dB                                                                            |
| Frequency Response              | 40 Hz–12.5 kHz $\pm$ 0.5 dB<br>30 Hz–15 kHz $\pm$ 2.0 dB                         |
| Selectivity                     | at 300 kHz<br>70 dB                                                              |

— Continued on page 2 —



SAFETY-RELATED COMPONENT WARNING!!  
COMPONENTS IDENTIFIED BY SHADING AND MARK  
ON THE SCHEMATIC DIAGRAMS AND IN THE  
PARTS LIST ARE CRITICAL TO SAFE OPERATION.  
REPLACE THESE COMPONENTS WITH SONY PARTS  
WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS  
MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# SONY

## SERVICE MANUAL

|                                 |                                            |
|---------------------------------|--------------------------------------------|
| <b>Capture Ratio:</b>           | 1.0 dB                                     |
| <b>AM Suppression Ratio:</b>    | 54 dB                                      |
| <b>Image Response Ratio:</b>    | 50 dB                                      |
| <b>IF Response Ratio:</b>       | 90 dB                                      |
| <b>Spurious Response Ratio:</b> | 70 dB                                      |
| <b>RF Intermodulation:</b>      | 60 dB (IHF)                                |
| <b>Muting Threshold:</b>        | Approx. 25 dBf, 10 $\mu$ V                 |
| <b>Output Level/impedance:</b>  | at 75 kHz deviation 550 mV, 3.3 k $\Omega$ |

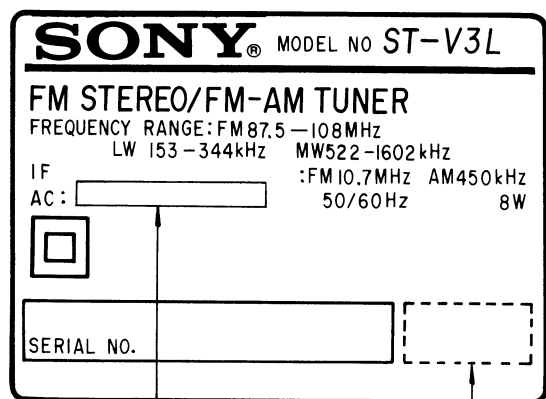
## MW/LW TUNER SECTION

|                        |                           | MW                         | LW                         |
|------------------------|---------------------------|----------------------------|----------------------------|
| Tuning Range           |                           | 522 kHz — 1,602 kHz        | 153 kHz — 344 kHz          |
| Antenna                | ferrite-rod antenna       | provided                   | provided                   |
|                        | external antenna terminal | provided                   | provided                   |
| Intermediate Frequency |                           | 450 kHz                    | 450 kHz                    |
| Usable Sensitivity     | ferrite-rod antenna       | 200 $\mu$ V/m (at 999 kHz) | 500 $\mu$ V/m (at 230 kHz) |
|                        | external antenna          | 30 $\mu$ V (at 999 kHz)    | 50 $\mu$ V (at 230 kHz)    |
| Signal-to noise Ratio  |                           | 54 dB                      | 54 dB                      |
| Harmonic Distortion    |                           | 0.3 %                      | 0.3 %                      |
| Selectivity            |                           | 35 dB (9 kHz)              | 35 dB (9 kHz)              |

While the information given is true at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

## MODEL IDENTIFICATION

— Specification Label —



AEP model: 220V —  
UK model: 240V —

FTZ  
(G-AEP model)

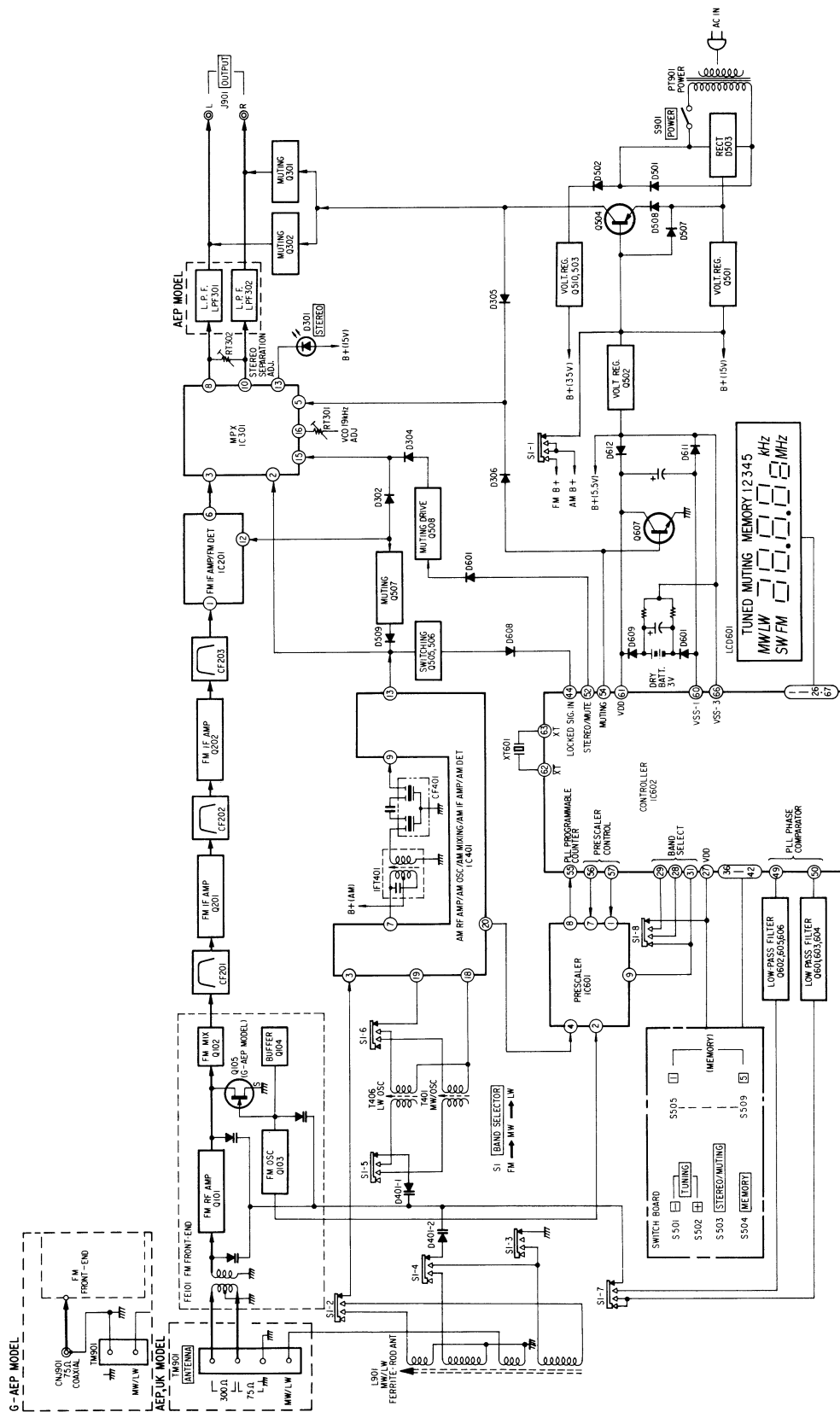
## FEATURES

The Sony ST-V3L FM stereo/FM-AM tuner provides accurate and easy tuning with digital synthesizer system in a remarkably compact cabinet.

- The quartz-locked frequency-synthesizer system allows accurate and stable tuning that is not affected by temperature variations or long period usage.
- Each station preset button allows you to memorize 3 stations: one station for each band, and to select these memorized stations with the touch of a button.
- In the manual tuning mode, quick and accurate station selection is possible with an electronic digital readout on the frequency display window.
- The back-lighted LCD (liquid crystal display) window clearly shows the frequency received, band, tuning, muting, memory standby and the selected station preset button number.
- The memory back-up batteries retain the memory contents when the power is turned off.
- An FM muting circuit is incorporated to eliminate any interstation noise.
- Slim, smart case.

## SECTION 1 OUTLINE

### 1-1. BLOCK DIAGRAM

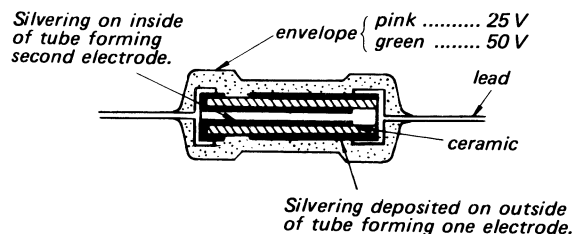


## 1-2. THE CERAMIC CAPACITORS

This set uses tube-type ceramic capacitors whose shape is identical with the carbon resistors. Be careful not to use resistors instead of capacitors in repairing.

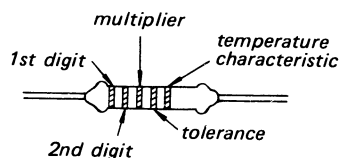
Disc-type ceramic capacitors can be used for replacing those originally used in the set.

Two kinds of drilled holes are provided in some patterns for mounting the tube-type and disc-type ceramic capacitors. Use appropriate holes where applicable.

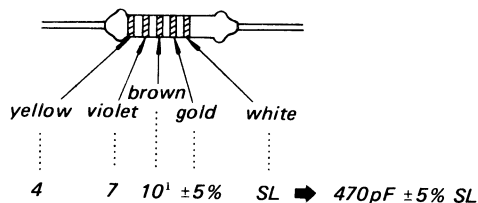


### COLOR CODE (in pF)

| Color  | 1st or 2nd Digit | Multiplier | Tolerance  | Temperature characteristic |
|--------|------------------|------------|------------|----------------------------|
| brown  | 1                | $10^1$     |            | Y                          |
| red    | 2                | $10^2$     |            | D                          |
| orange | 3                | $10^3$     |            |                            |
| yellow | 4                | $10^4$     |            | RH                         |
| green  | 5                |            |            |                            |
| blue   | 6                |            |            |                            |
| violet | 7                |            |            | UJ                         |
| gray   | 8                |            | $\pm 30\%$ | X                          |
| white  | 9                |            |            | SL                         |
| black  | 0                | $10^0$     | $\pm 20\%$ | CH                         |
| gold   |                  | $10^{-1}$  | $\pm 5\%$  | V                          |
| silver |                  | $10^{-2}$  | $\pm 10\%$ | B                          |



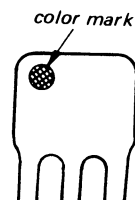
Example:



## • IF OFFSET ADJUSTMENT (FM IF)

### Diode Installations Depending on the Ceramic Filters (CF201 – 203)

This set employs three ceramic filters (CF201 – 203) which should have the same colour marking to identify their center frequency. Therefore FM IF offset adjustment by diodes (D604 – 605) installation is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



| Ceramic filter |                        | Diode installation |      | FM intermediate frequency (MHz) |
|----------------|------------------------|--------------------|------|---------------------------------|
| Color mark     | Center frequency (MHz) | D604               | D605 |                                 |
| White          | 10.750                 | X                  | ○    | 10.750                          |
| Red            | 10.700                 | X                  | X    | 10.700                          |
| Black          | 10.650                 | ○                  | X    | 10.650                          |

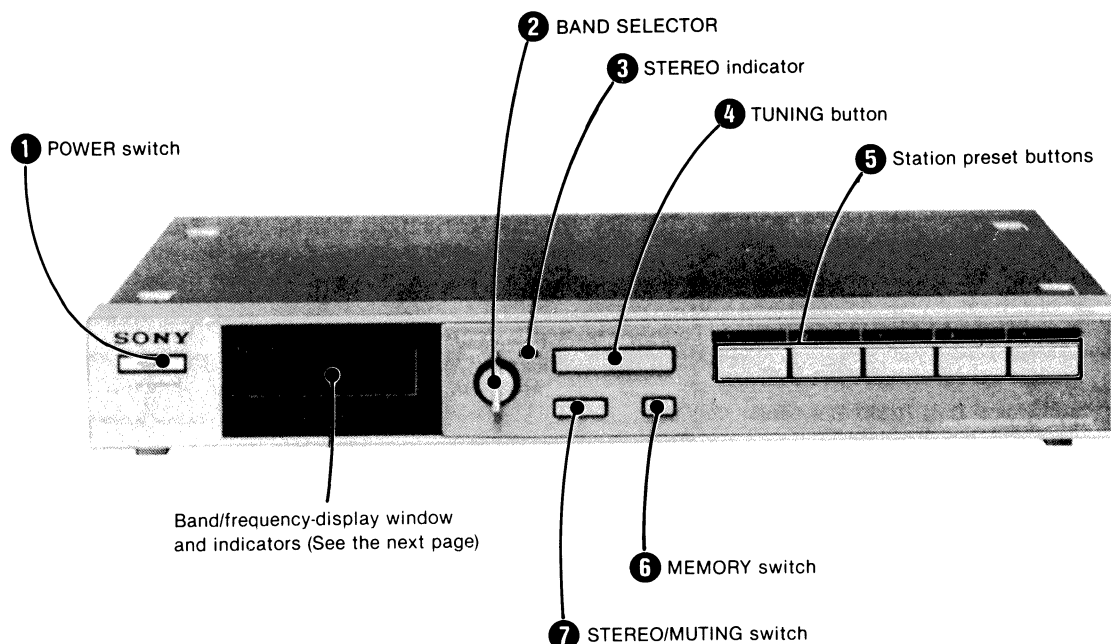
○: installed  
X: not installed

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i.e., of same colour coding should be used for CF201 through CF203.

### 1-3. LOCATION AND FUNCTION OF CONTROLS

Each number in the photo is keyed to the descriptive text.

The photo shows the model ST-V3L.



#### 1 POWER switch

Depress to turn on the power. To turn the power off, press the switch again.

#### 2 BAND SELECTOR

Selects the desired band: FM, MW or LW. The selected band will be indicated in the band/frequency-display window.

#### 3 STEREO indicator

This indicator will light when an FM stereo program of sufficient signal strength is tuned in with the STEREO/MUTING switch engaged.

#### 4 TUNING button

Press either side of this button to change the frequency. Press the left side ( - ) to go to a lower frequency and the right side ( + ) to go to a higher. To change the frequency continuously until the desired frequency is received, keep the button depressed. The frequency figures will change rapidly. To change the frequency slowly, successively press and immediately release the button.

#### 5 Station preset buttons

To call up a memorized station, press the appropriate button.

#### 6 MEMORY switch

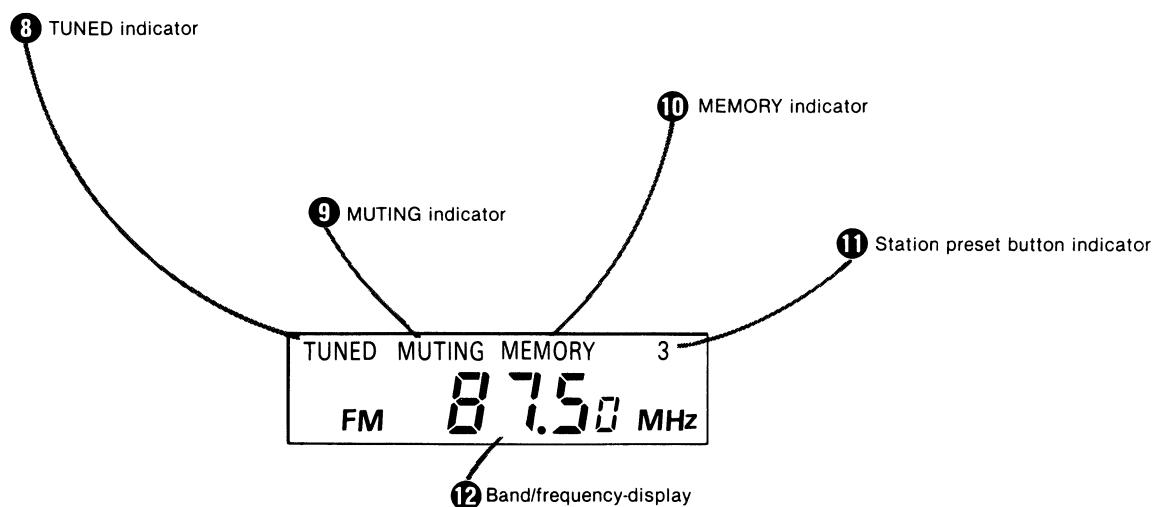
Press to operate memory circuit. The MEMORY indicator will appear in the band/frequency-display window for a few seconds indicating that the memory circuit is standing by.

#### 7 STEREO/MUTING switch

This switch serves the dual purpose of a mode and FM muting switch.

Normally keep this switch engaged (the MUTING indicator illuminates) to eliminate FM interstation noise while tuning from station to station. The tuner operates in stereo mode for stereo sound sources and will be automatically switched to mono mode for monaural sound sources.

When you want to tune in a very weak station, or when an FM program is too noisy, press the switch to disengage it. (The MUTING indicator will go out.) This will enable the tuner to receive weak stations, although the stereo feature is sacrificed. In this case, keep the amplifier volume down to avoid speaker damage caused by the interstation noise.

**BAND/FREQUENCY-DISPLAY WINDOW AND INDICATORS****8 TUNED indicator**

This indicator illuminates when a sufficiently strong signal is tuned in.

**9 MUTING indicator**

This indicator illuminates when the STEREO/MUTING switch is engaged in FM reception.

**10 MEMORY indicator**

When the MEMORY switch is pressed, "MEMORY" will appear for a few seconds indicating that the memory circuit is standing by.

**11 Station preset button indicator**

When the station preset button is pressed, a figure from 1 to 5 corresponding to the pressed button will appear.

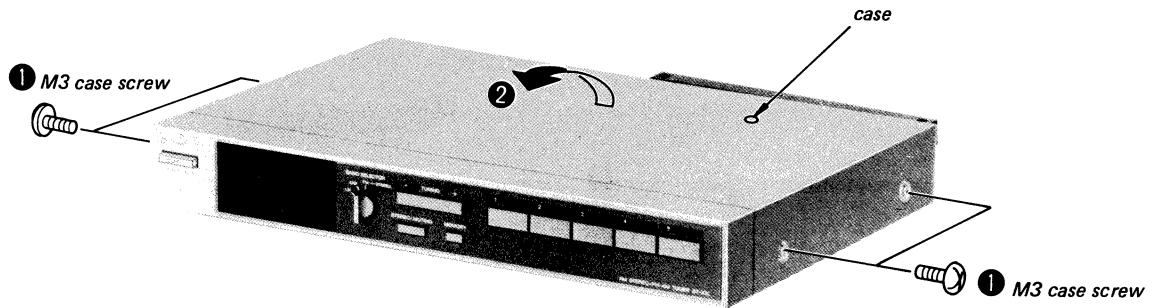
**12 Band/frequency-display**

Permits reading the received frequency at a glance from the figures.

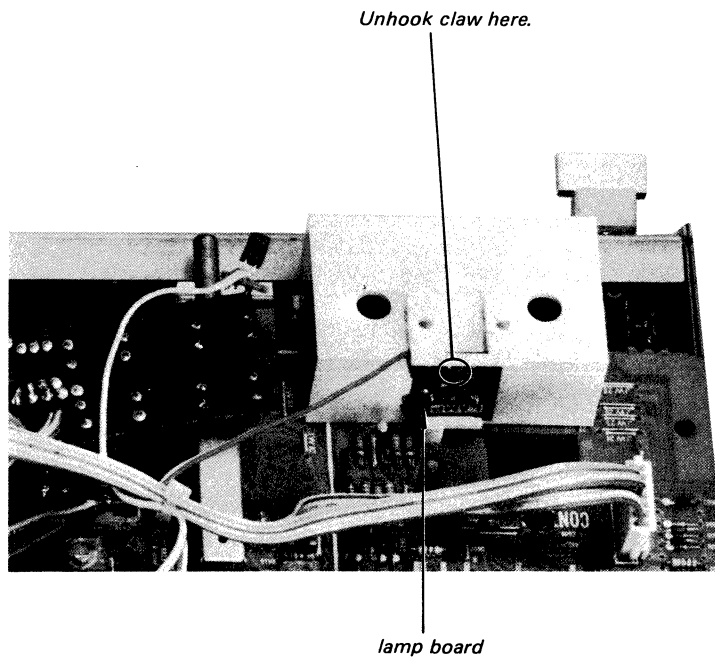
## SECTION 2 DISASSEMBLY

**Note:** Follow the disassembly procedure in the numerical order given.

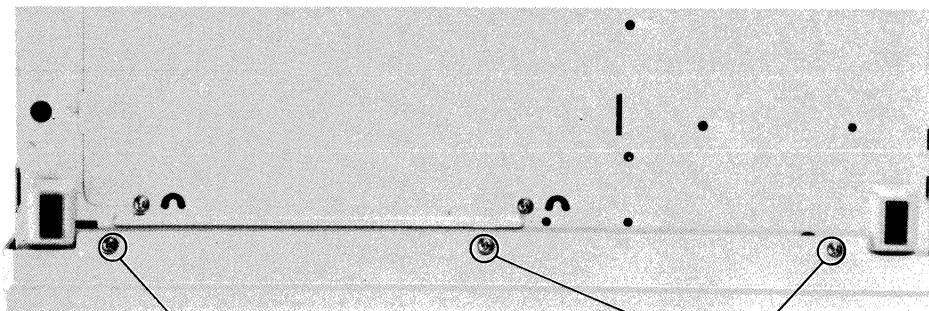
### CASE



### LAMP BOARD AND LAMP PL901

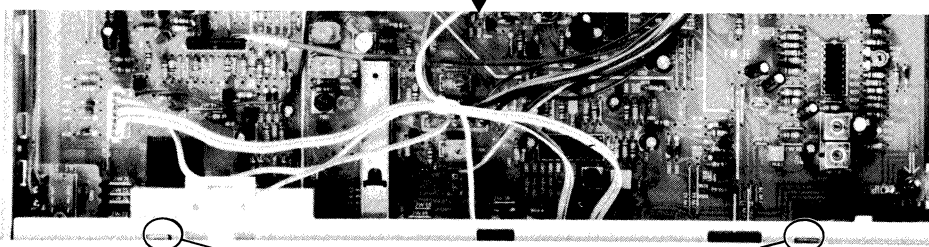


## FRONT PANEL



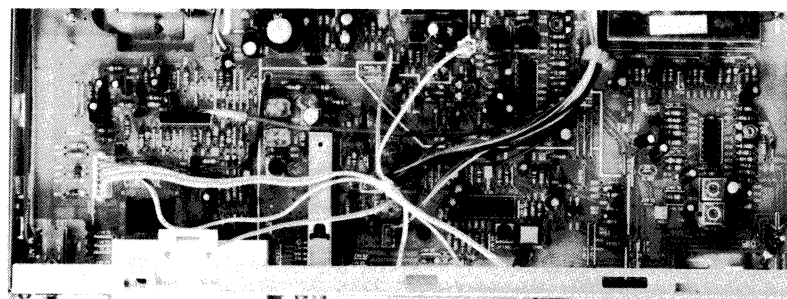
① Remove a + BVTT3 x 6 screw.

② Remove two + BVTT3 x 8 screws and panel plate.



③ Unhook two front-panel claws from subpanel.

## SWITCH BOARD/LED BOARD



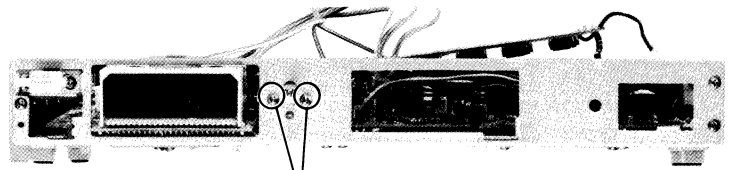
front panel

Remove a + BVTP 3 x 6 screw.

Pull off LED board from LED groove in the front panel.

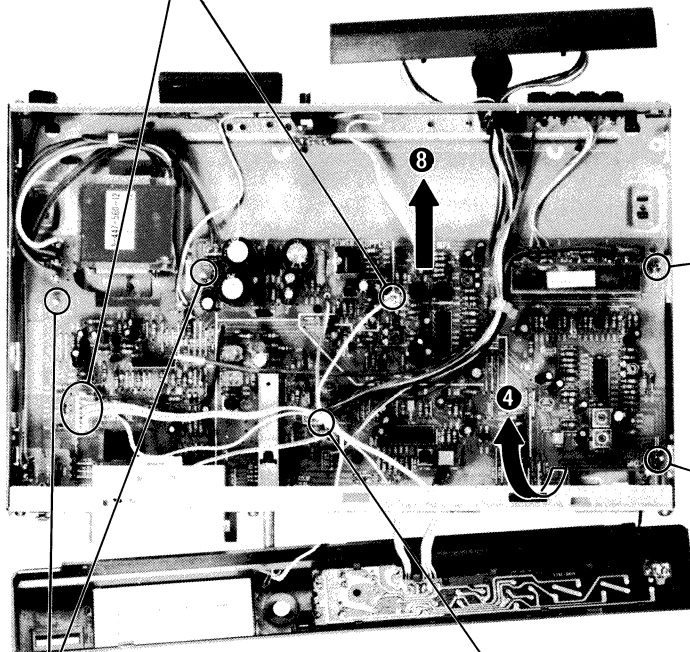
Unhook eight (8) claws from board.

## TUNER BOARD



- 3 Remove connectors from switch and LED boards. Reroute the wires over the subpanel and re-connect the connectors when desired.

- 6 Remove two (2) + BVTT 3 x 6 screws from band switch.



- 8 Move tuner board backward clearing power transformer and band-switch shaft.

- 5 Remove + BVTT3 x 6 screw.

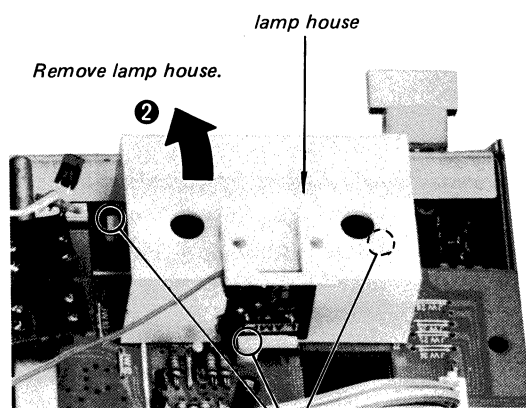
- 1 Remove + BVTT3 x 6 screw and grounding lug. Reroute grounding lead over the subchassis and re-connect grounding lug to chassis when desired.

- 4 Move front panel onto tuner board.

- 7 Release tuner board from two board supports. Do not break the board at the left side.

- 2 Untie the wire clamp.

## LIQUID CRYSTAL DISPLAY



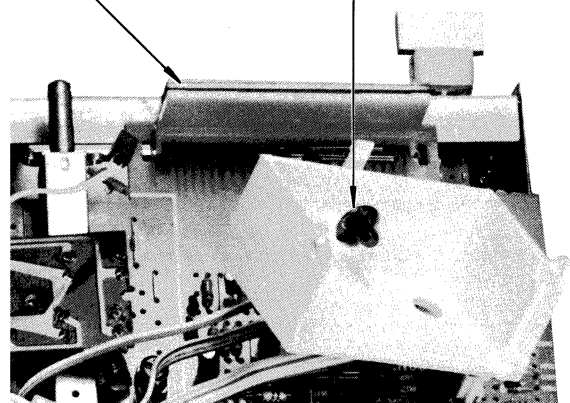
Remove lamp house.

lamp house

- 1 Unhook claw here.

liquid crystal display (LCD601)

lamp (PL901)



## SECTION 3 ADJUSTMENTS

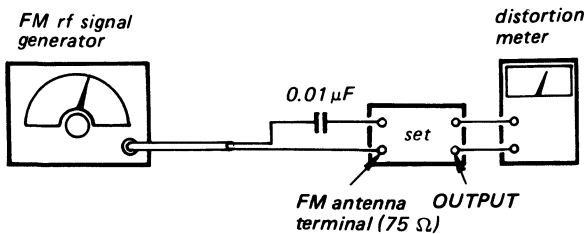
### FM SECTION

#### FM Discriminator Alignment

##### Setting:

BAND SELECTOR switch . . . . FM  
STEREO/MUTING switch . . . . OFF

##### Procedure:



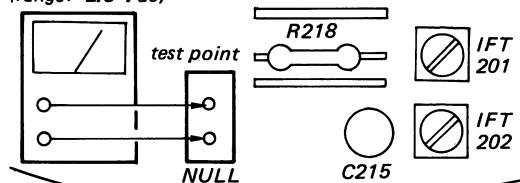
Carrier frequency: 98 MHz  
Output level: 1 mV (60 dB)  
Modulation: 400 Hz, 40 kHz deviation (100%)

1. Tune the set to 98MHz.
2. Adjust IFT201 for 0 V reading on the VOM. . . . NULL Adjustment

**Note:** When the ceramic filter is replaced, these adjustments should be made.

3. Adjust IFT202 for a minimum reading on the distortion meter. . . . . Distortion Adjustment

VOM  
(range: 2.5 Vdc)

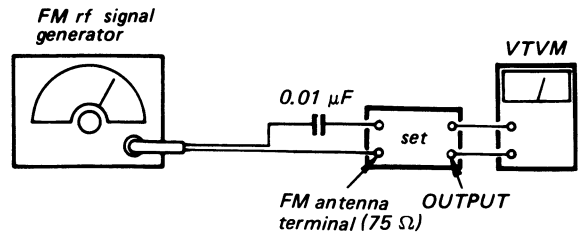


#### FM Muting Level Adjustment

##### Setting:

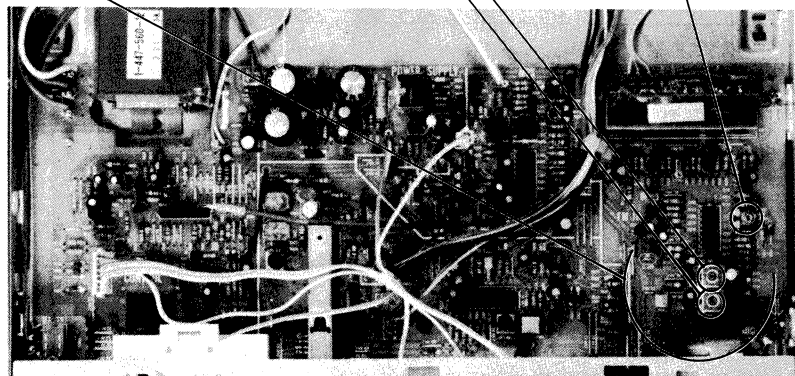
BAND SELECTOR switch . . . . FM  
STEREO/MUTING switch . . . . ON

##### Procedure:



Carrier frequency: 98 MHz  
Modulation: 400 Hz, 40 kHz deviation (100 %)  
Output level: 10 μV (20 dB)

1. Tune the set to 98 MHz.
2. Adjust RT201 for a point the VTVM reading just drops to 0 V.

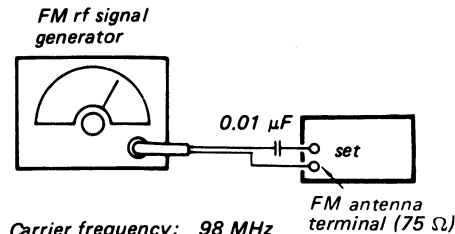


VCO Adjustment

Setting: BAND SELECTOR switch: FM  
STEREO/MUTING switch: OFF

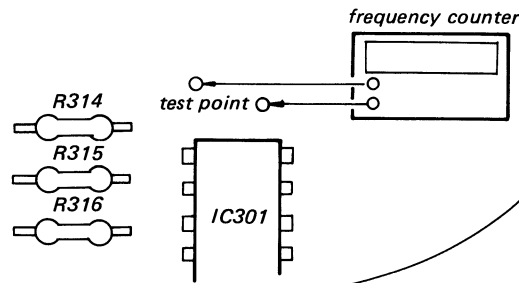
A) Regular Method

Procedure:



Carrier frequency: 98 MHz  
Modulation: no modulation  
Output level: 1 mV (60 dB)

1. Tune the set to 98 MHz.
2. Adjust RT301 for 19 kHz  $\pm$  50 Hz on the counter.

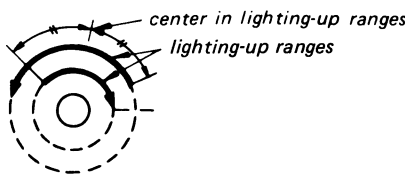


RT301

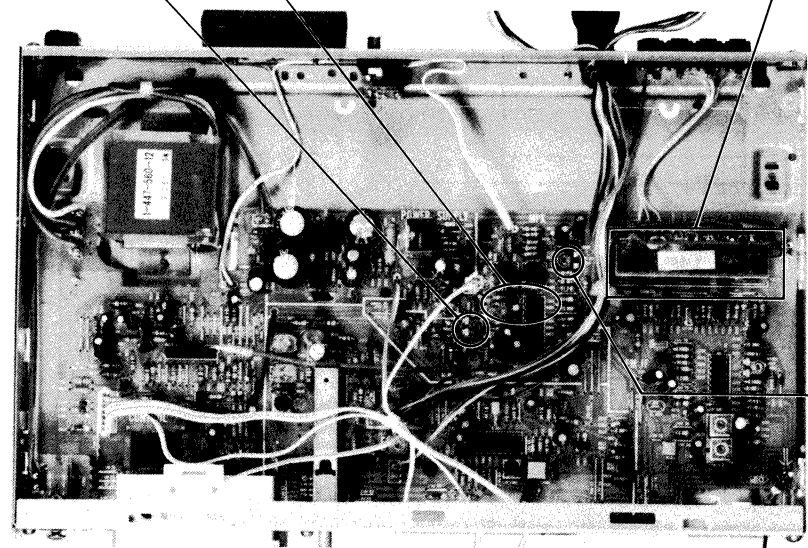
B) Simple Method

Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT301 clockwise or counterclockwise and memorize the lighting-up range of the stereo lamp.
3. Secure RT301 at the center of the lighting-up range of both turns as shown below.



The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.



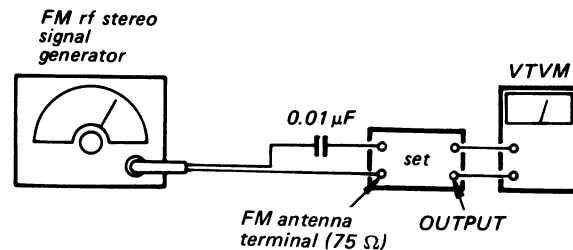
RT302

FM Stereo Separation Adjustment

Setting:

BAND SELECTOR switch . . . . . FM  
STEREO/MUTING switch . . . . . ON (STEREO)

Procedure:



Carrier frequency: 98 MHz  
Output level: 1 mV (60 dB)  
Modulation: Stereo

Audio (1 kHz): 16.25 kHz deviation (45 %)  
Pilot (19 kHz): 7.5 kHz deviation (10 %)  
Sub-channel (38 kHz) 16.25 kHz deviation (45 %)

| FM stereo signal generator output channel | VTVM connection | VTVM reading (dB)                        |
|-------------------------------------------|-----------------|------------------------------------------|
| L-CH                                      | L-CH            | (A)                                      |
| R-CH                                      | L-CH            | (B)<br>Adjust RT302 for minimum reading. |
| R-CH                                      | R-CH            | (C)                                      |
| L-CH                                      | R-CH            | (D)<br>Adjust RT302 for minimum reading. |

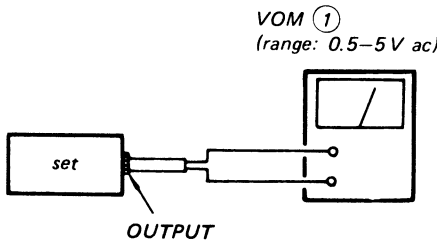
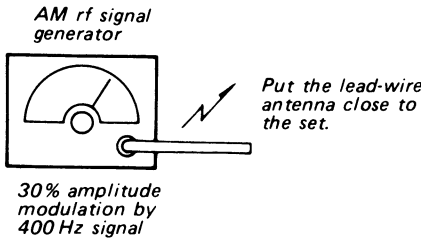
L-CH Stereo separation: (A) - (B)  
R-CH Stereo separation: (C) - (D)

The separations of both channels should be equal.

MW/LW SECTION

Setting:

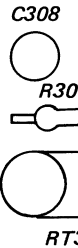
BAND SELECTOR switch: MW/LW



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

| MW FREQUENCY COVERAGE ADJUSTMENT |                      |            |
|----------------------------------|----------------------|------------|
| reading on VOM (2)               | frequency indication | adjustment |
| 22 $\pm$ 0.2 V                   | 1,602 kHz            | CT401      |
| 1.6 $\pm$ 0.1 V                  | 522 kHz              | T401       |

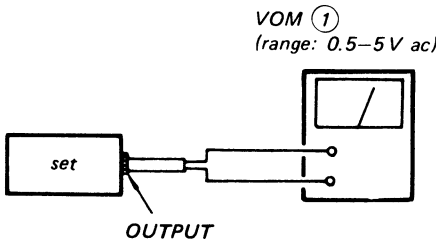
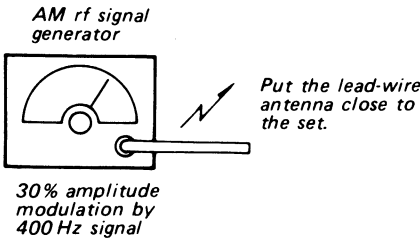
| LW FREQUENCY         |  |
|----------------------|--|
| reading on VOM (2)   |  |
| frequency indication |  |
| adjustment part      |  |



MW/LW SECTION

Setting:

BAND SELECTOR switch: MW/LW



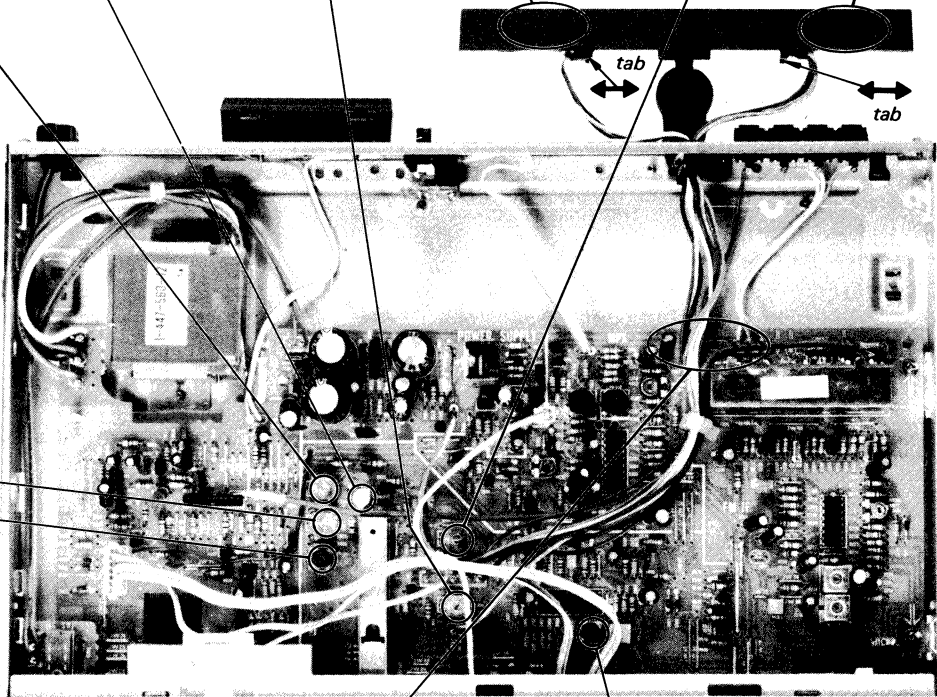
- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

| LW FREQUENCY COVERAGE ADJUSTMENT |              |             |
|----------------------------------|--------------|-------------|
| reading on VOM ②                 | 18.5 ± 0.2 V | 2.2 ± 0.1 V |
| frequency indication             | 344 kHz      | 153 kHz     |
| adjustment part                  | CT407        | T406        |

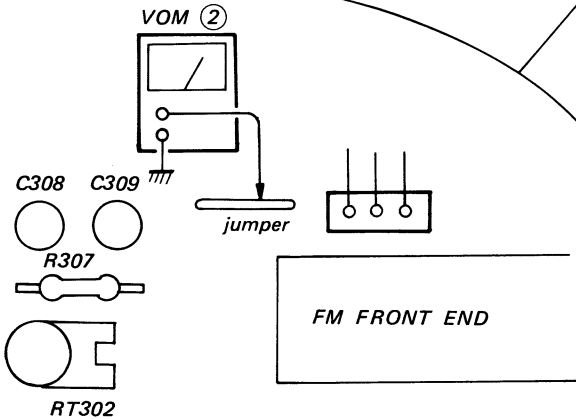
| MW TRACKING ADJUSTMENT                 |         |
|----------------------------------------|---------|
| Adjust for a maximum reading on VOM ①. |         |
| 1,404 kHz                              | 603 kHz |
| CT404                                  | L901    |

| LW TRACKING ADJUSTMENT                 |         |
|----------------------------------------|---------|
| Adjust for a maximum reading on VOM ①. |         |
| 310 kHz                                | 170 kHz |
| CT405                                  | L901    |

| MW FREQUENCY COVERAGE ADJUSTMENT |                      |                 |
|----------------------------------|----------------------|-----------------|
| reading on VOM ②                 | frequency indication | adjustment part |
| 22 ± 0.2 V                       | 1,602 kHz            | CT401           |
| 1.6 ± 0.1 V                      | 522 kHz              | T401            |



|                                        |         |
|----------------------------------------|---------|
| IFT401                                 | 450 kHz |
| Adjust for a maximum reading on VOM ①. |         |
| AM IF ALIGNMENT                        |         |

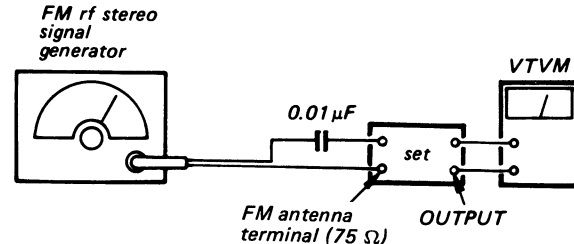


FM Stereo Separation Adjustment

Setting:

BAND SELECTOR switch . . . . . FM  
STEREO/MUTING switch . . . . . ON (STEREO)

Procedure:



Carrier frequency: 98 MHz  
Output level: 1mV (60 dB)  
Modulation: Stereo

Audio (1 kHz): 16.25 kHz deviation (45 %)  
Pilot (19 kHz): 7.5 kHz deviation (10 %)  
Sub-channel (38 kHz) 16.25 kHz deviation (45 %)

| FM stereo signal generator output channel | VTVM connection | VTVM reading (dB)                                   |
|-------------------------------------------|-----------------|-----------------------------------------------------|
| L-CH                                      | L-CH            | Ⓐ                                                   |
| R-CH                                      | L-CH            | Ⓑ <sup>Ⓐ</sup><br>Adjust RT302 for minimum reading. |
| R-CH                                      | R-CH            | Ⓒ                                                   |
| L-CH                                      | R-CH            | Ⓓ <sup>Ⓒ</sup><br>Adjust RT302 for minimum reading. |

L-CH Stereo separation: Ⓐ – Ⓑ<sup>Ⓐ</sup>  
R-CH Stereo separation: Ⓒ – Ⓓ<sup>Ⓒ</sup>

The separations of both channels should be equal.

RT302

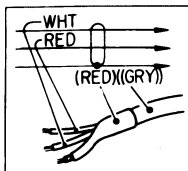
## 4-1. MOUNTING DIAGRAM

Semiconductor Lead Layout . . . See page 20.

SECTION 4  
DIAGRAMS

## Note: (for Mounting Diagram)

- Color code of sleeving over the end of the jacket.



- [ ] : indicates side identified with part number.
- [ ] : B+ pattern
- [ ] : signal path
- [ ] : L-CH signal path
- [ ] : R-CH signal path

## Note: (for Schematic Diagram)

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$  :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms,  $\frac{1}{4}\text{W}$  unless otherwise noted.  $\text{k}\Omega$  : 1000  $\Omega$ ,  $\text{M}\Omega$  : 1000  $\text{k}\Omega$
- [ ] : adjustment for repair.
- [ ] : B+ bus.
- Readings are taken under no-signal (detuned) conditions with a VOM (50  $\text{k}\Omega/\text{V}$ ).

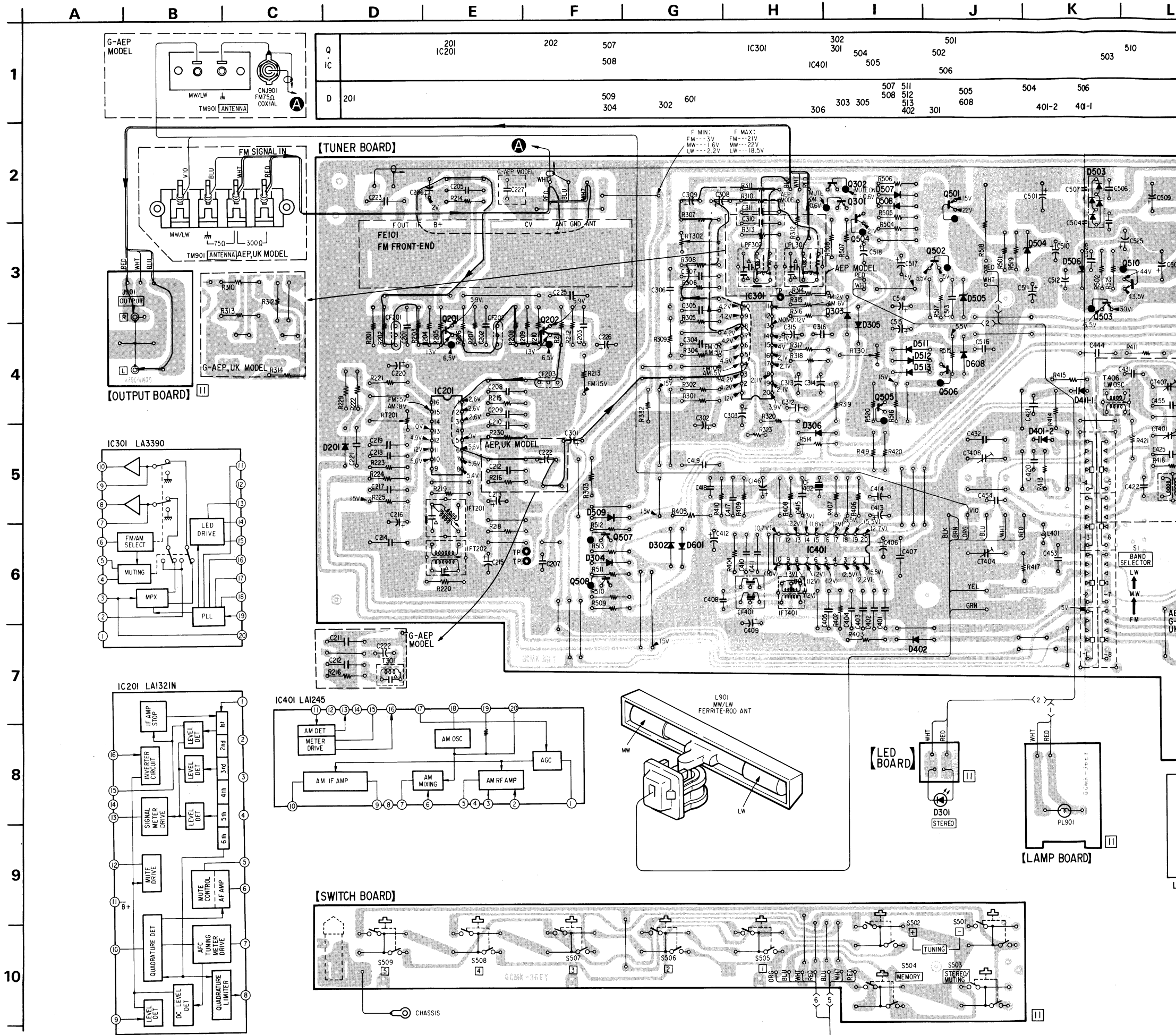
( ) : AM

- Switch

| Ref. No. | Switch        | Position |
|----------|---------------|----------|
| S1       | BAND SELECTOR | FM       |
| S501     | TUNING/+      | OFF      |
| S502     | TUNING/-      | OFF      |
| S503     | STEREO MUTING | OFF      |
| S504     | MEMORY        | OFF      |
| S505-509 | 1-5           | OFF      |
| S901     | POWER         | OFF      |

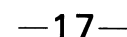
Note: The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Note: Voltages are measured with a VOM (50 $\text{k}\Omega/\text{V}$ ).





**ST-V3L      ST-V3L**

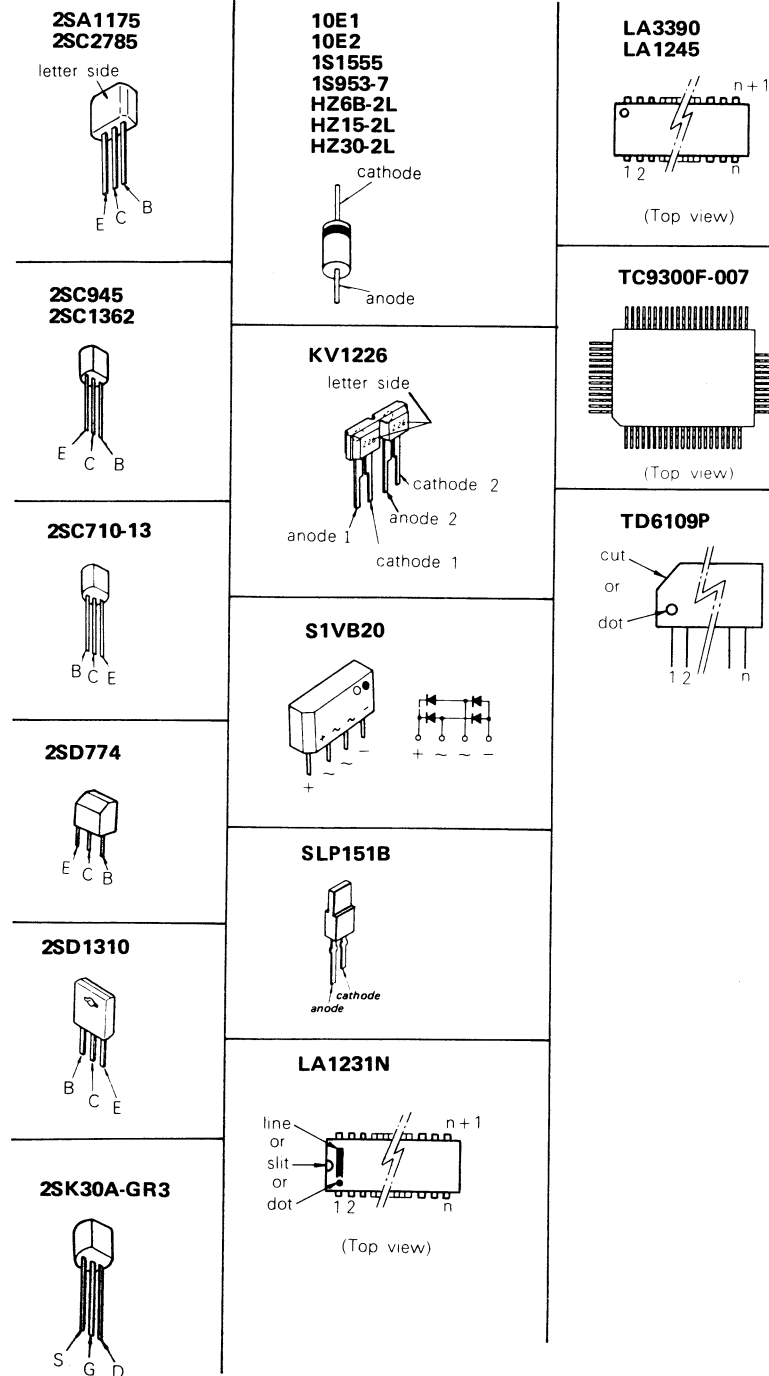




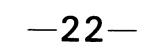
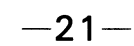
## SECTION 5

### EXPLODED VIEWS AND PARTS LIST

- SEMICONDUCTOR LEAD LAYOUT



**ST-V3L      ST-V3L**



## GENERAL SECTION

| No. | Part No.     | Description                    |
|-----|--------------|--------------------------------|
| 1   | 3-701-690-00 | (UK).....LABEL, MADE IN JAPAN  |
| 2   | 3-703-043-00 | (UK).....LABEL, MAIN CAUTION   |
| 3   | 3-703-244-00 | BUSHING, CORD                  |
| 4   | 3-703-353-01 | SUPPORT, PC BOARD              |
| 5   | 3-703-590-00 | (G-AEP)....LABEL, FTZ          |
| 6   | 3-703-710-01 | STICKER, SONY SYMBOL (12)      |
| 7   | 3-831-441-11 | CUSHION, 23X4X0.5              |
| 8   | 3-883-424-00 | SPRING                         |
| 9   | 3-883-428-00 | PLATE, TERMINAL (POSITIVE)     |
| 10  | 4-808-716-00 | PROTECTOR (C)                  |
| 11  | 4-812-134-00 | (G-AEP)....RIVET, NYLON        |
| 12  | 4-875-327-01 | HEAT SINK                      |
| 13  | 4-875-466-00 | JOINT (F2), KNOB               |
| 14  | 4-875-530-00 | CASE, BATTERY                  |
| 15  | 4-884-848-00 | ILLUMINATOR (ST)               |
| 16  | 4-884-856-00 | HOUSE, LAMP                    |
| 17  | 4-886-821-11 | SCREW, M3 CASE                 |
| 18  | 4-886-844-01 | PLATE, BOTTOM                  |
| 19  | 4-886-845-11 | CASE                           |
| 20  | 4-886-960-01 | (G-AEP)....LABEL, MODEL NUMBER |
| 20  | 4-886-960-11 | (AEP).....LABEL, MODEL NUMBER  |
| 20  | 4-886-961-01 | (UK).....LABEL, MODEL NUMBER   |
| 21  | 4-886-965-00 | (AEP,UK)...PLATE, JACK         |
| 21  | 4-886-966-01 | (G-AEP)....PLATE, JACK         |
| 22  | 4-886-976-00 | ESCUTCHEON, POWER KNOB         |
| 23  | 4-888-205-00 | KNOB (A), PUSH                 |
| 24  | 4-888-206-00 | KNOB (B), PUSH                 |
| 25  | 4-888-207-00 | KNOB (C), PUSH                 |
| 26  | 4-888-208-00 | KNOB (F), PUSH                 |
| 27  | 4-888-210-00 | KNOB, SELECT, BAND             |
| 28  | 4-888-212-00 | PLATE, PREVENTION              |
| 29  | 4-888-213-00 | PANEL, SUB                     |
| 30  | 4-888-214-01 | CHASSIS                        |
| 31  | .....        |                                |
| 32  | 4-888-226-00 | CLIP, STAND-OFF                |
| 33  | 7-682-647-01 | SCREW +PS 3X6                  |
| 34  | 7-685-646-11 | SCREW +BVTP 3X8 TYPE2 N-S      |
| 35  | 7-685-646-71 | SCREW +BVTP 3X8 TYPE2 IT-3     |
| 36  | 7-685-871-01 | SCREW +BVTT 3X6 (S)            |
| 37  | 3-703-470-00 | SCREW, +BV TERMINAL            |
| 38  | 7-685-872-01 | SCREW +BVTT 3X8 (S)            |
| 39  | 9-911-863-XX | INSULATOR                      |
| 40  | A-4322-496-A | PANEL ASSY                     |
| 41  | X-4886-405-1 | FOOT ASSY                      |
| 42  | X-4886-903-0 | KNOB (L.S) ASSY, POWER         |

## GENERAL SECTION

| No. | Part No.     | Description      |
|-----|--------------|------------------|
| 43  | 4-888-230-00 | SPRING, CONTACT  |
| 44  | .....        |                  |
| 45  | 4-888-231-00 | BRACKET, HOLDING |
| 46  | 4-888-232-00 | SPACER           |
| 47  | 3-703-473-00 | SCREW            |
| 48  | 4-888-231-00 | PLATE, PANEL     |

## ACCESSORY &amp; PACKING MATERIAL

| No. | Part No.     | Description                       |
|-----|--------------|-----------------------------------|
| 101 | 1-501-161-00 | (AEP,UK)....ANTENNA, FEEDER       |
| 102 | 1-528-027-11 | BATTERY, NEW SUPER (SUM-3)(NS)    |
| 103 | 1-556-793-21 | CORD, CONNECTION                  |
| 104 | 3-701-630-00 | BAG, POLYETHYLENE                 |
| 105 | 3-773-300-11 | (AEP,UK).....MANUAL, INSTRUCTION  |
| 105 | 3-773-300-41 | (AEP,G-AEP)...MANUAL, INSTRUCTION |
| 106 | 4-875-574-00 | SHEET, PROTECTION                 |
| 107 | 4-886-982-00 | INDIVIDUAL CARTON                 |
| 108 | 4-886-997-00 | CUSHION (RIGHT), UPPER            |
| 109 | 4-886-998-00 | CUSHION (LEFT), UPPER             |
| 110 | 4-886-999-00 | CUSHION (RIGHT), LOWER            |
| 111 | 4-888-201-00 | CUSHION (LEFT), LOWER             |
| 112 | 4-888-219-00 | SPACER, FERRITE-ROD ANTENNA       |

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "●" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.  
MF:μF, PF:μμF.

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH : μH

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

In each case, U : μ, for example:  
UA.... : μA..., UPA.... : μPA..., UPC.... : μPC,  
UPD.... : μPD...

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                        |
|---------|----------------|------------------------------------|
| 501     | .....          |                                    |
| 502     | ♣;1-535-115-00 | TERMINAL                           |
| 503     | ♣;1-535-118-00 | TERMINAL                           |
| 504     | ♣;1-535-416-00 | TERMINAL                           |
| 505     | ♣;1-560-060-00 | PIN, CONNECTOR 2P                  |
| 506     | ♣;1-560-338-00 | PIN, CONNECTOR 7P                  |
| 507     | ♣;1-609-846-00 | PC BOARD, S-1                      |
| 508     | ♣;1-609-847-00 | PC BOARD, POWER SWITCH             |
| 509     | ♣;1-609-848-00 | PC BOARD, OUTPUT                   |
| 510     | ♣;1-609-849-00 | PC BOARD, LAMP                     |
| 511     | ♣;1-609-850-00 | PC BOARD, LED                      |
| 512     | ♣;1-609-852-00 | PC BOARD, TUNER                    |
| C201    | 1-161-263-00   | CERAMIC 22PF 5% 50V                |
| C202    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C203    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C205    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C206    | 1-123-319-00   | ELECT 47MF 20% 16V                 |
| C207    | 1-101-005-00   | CERAMIC 0.022MF 50V                |
| C208    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C209    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C210    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C211    | 1-161-321-00   | (G-AEP)...CERAMIC 220PF 10% 50V    |
| C212    | 1-161-265-00   | (AEP,UK)...CERAMIC 33PF 5% 50V     |
| C212    | 1-161-321-00   | (G-AEP)...CERAMIC 660PF 10% 50V    |
| C213    | 1-123-380-00   | ELECT 1MF 20% 50V                  |
| C214    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C215    | 1-123-380-00   | ELECT 1MF 20% 50V                  |
| C216    | 1-123-320-00   | ELECT 100MF 20% 16V                |
| C217    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C218    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C219    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C220    | 1-123-380-00   | ELECT 1MF 20% 50V                  |
| C221    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C222    | 1-123-356-00   | ELECT 10MF 20% 16V                 |
| C223    | 1-161-323-00   | CERAMIC 0.001MF 10% 50V            |
| C225    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V            |
| C226    | 1-123-319-00   | ELECT 47MF 20% 16V                 |
| C227    | 1-101-005-00   | (G-AEP)... CERAMIC 0.022MF 30% 50V |
| C301    | 1-123-356-00   | ELECT 10MF 20% 16V                 |
| C302    | 1-123-320-00   | ELECT 100MF 20% 16V                |
| C303    | 1-123-328-00   | ELECT 4.7MF 20% 25V                |
| C304    | 1-161-320-00   | CERAMIC 560PF 10% 50V              |
| C305    | 1-161-320-00   | CERAMIC 560PF 10% 50V              |
| C306    | 1-161-330-00   | CERAMIC 0.01MF 30% 25V             |
| C307    | 1-161-330-00   | CERAMIC 0.01MF 30% 25V             |
| C308    | 1-123-328-00   | ELECT 4.7MF 20% 25V                |

## NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked "♣" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in  $\mu\text{F}$ . Common capacitors are omitted. Refer to the following lists for their part numbers. MF: $\mu\text{F}$ , PF: $\mu\text{F}$ .

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH :  $\mu\text{H}$

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                      |
|---------|----------------|----------------------------------|
| C309    | 1-123-328-00   | ELECT 4.7MF 20% 25V              |
| C310    | 1-161-326-00   | (AEP)...CERAMIC 0.0022MF 30% 50V |
| C311    | 1-161-326-00   | (AEP)...CERAMIC 0.0022MF 30% 50V |
| C312    | 1-101-006-00   | CERAMIC 0.047MF 50V              |
| C313    | 1-123-353-00   | ELECT 2.2MF 20% 50V              |
| C314    | 1-123-354-00   | ELECT 3.3MF 20% 50V              |
| C315    | 1-123-380-00   | ELECT 1MF 20% 50V                |
| C316    | 1-104-077-00   | POLYSTYRENE 0.001MF 5% 50V       |
| C401    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C402    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C403    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C404    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C405    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C406    | 1-123-328-00   | ELECT 4.7MF 20% 25V              |
| C407    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C408    | 1-161-267-00   | CERAMIC 47PF 5% 50V              |
| C409    | 1-123-356-00   | ELECT 10MF 20% 16V               |
| C410    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C411    | 1-161-323-00   | CERAMIC 0.001MF 10% 50V          |
| C412    | 1-123-319-00   | ELECT 47MF 20% 16V               |
| C413    | 1-123-328-00   | ELECT 4.7MF 20% 25V              |
| C414    | 1-123-354-00   | ELECT 3.3MF 20% 50V              |
| C415    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C416    | 1-123-351-00   | ELECT 0.47MF 20% 50V             |
| C417    | 1-161-494-00   | CERAMIC 0.022MF 30% 25V          |
| C418    | 1-101-005-00   | CERAMIC 0.022MF 30% 25V          |
| C419    | 1-161-329-00   | CERAMIC 0.0068MF 30% 25V         |
| C420    | 1-101-005-00   | CERAMIC 0.022MF 50V              |
| C421    | 1-101-005-00   | CERAMIC 0.022MF 50V              |
| C422    | 1-103-716-00   | POLYSTYRENE 430PF 5% 50V         |
| C425    | 1-161-301-00   | CERAMIC 10PF 5% 50V              |
| C431    | 1-103-706-00   | POLYSTYRENE 160PF 5% 50V         |
| C432    | 1-161-295-00   | CERAMIC 15PF 5% 50V              |
| C444    | 1-161-330-00   | CERAMIC 0.01MF 30% 25V           |
| C453    | 1-161-053-00   | CERAMIC 0.0015MF 30% 50V         |
| C454    | 1-102-120-00   | CERAMIC 0.0018MF 10% 50V         |
| C455    | 1-161-344-00   | CERAMIC 62PF 5% 50V              |
| C501    | Δ.1-123-349-00 | ELECT 1000MF 20% 35V             |
| C502    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C503    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C504    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C505    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C506    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C507    | 1-101-004-00   | CERAMIC 0.01MF 50V               |
| C508    | Δ.1-123-363-00 | ELECT 470MF 20% 50V              |
| C509    | Δ.1-123-363-00 | ELECT 470MF 20% 50V              |

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

In each case, U :  $\mu$ , for example:  
 UA....:  $\mu\text{A}$ ..., UPA....:  $\mu\text{PA}$ ..., UPC....:  $\mu\text{PC}$ ,  
 UPD....:  $\mu\text{PD}$ ...

## ELECTRICAL PARTS

| Ref.No.              | Part No.                             | Description                   |
|----------------------|--------------------------------------|-------------------------------|
| C510                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C511                 | 1-123-320-00                         | ELECT 100MF 20% 16V           |
| C512                 | 1-123-359-00                         | ELECT 47MF 20% 35V            |
| C513                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C514                 | 1-123-319-00                         | ELECT 47MF 20% 16V            |
| C515                 | 1-123-356-00                         | ELECT 10MF 20% 16V            |
| C516                 | 1-123-319-00                         | ELECT 47MF 20% 16V            |
| C517                 | 1-123-359-00                         | ELECT 47MF 20% 35V            |
| C518                 | 1-123-330-00                         | ELECT 22MF 20% 25V            |
| C525                 | 1-123-356-00                         | ELECT 10MF 20% 50V            |
| C526                 | 1-101-005-00                         | CERAMIC 0.022MF 50V           |
| C602                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C603                 | 1-161-330-00                         | CERAMIC 0.01MF 30% 25V        |
| C604                 | 1-161-330-00                         | CERAMIC 0.01MF 30% 25V        |
| C605                 | 1-101-974-00                         | CERAMIC 20PF 5% 50V           |
| C606                 | 1-102-851-00                         | CERAMIC 15PF 5% 50V           |
| C607                 | 1-123-351-00                         | ELECT 0.47MF 20% 50V          |
| C608                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C609                 | 1-123-353-00                         | ELECT 2.2MF 20% 50V           |
| C610                 | 1-123-356-00                         | ELECT 10MF 20% 16V            |
| C611                 | 1-123-607-00                         | ELECT 0.1MF 20% 50V           |
| C612                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C613                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C614                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C615                 | 1-130-635-00                         | FILM 0.18MF 5% 50V            |
| C616                 | 1-123-351-00                         | ELECT 0.47MF 20% 50V          |
| C617                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C618                 | 1-123-359-00                         | ELECT 47MF 20% 35V            |
| C619                 | 1-123-351-00                         | ELECT 0.47 20% 50V            |
| C620                 | 1-123-607-00                         | ELECT 0.1MF 20% 50V           |
| C621                 | 1-123-607-00                         | ELECT 0.1MF 20% 50V           |
| C622                 | 1-101-005-00                         | CERAMIC 0.022MF 50V           |
| C623                 | 1-161-259-00                         | CERAMIC 10PF 5% 50V           |
| C624                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C625                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C626                 | 1-161-494-00                         | CERAMIC 0.022MF 30% 25V       |
| C901                 | 1-101-004-00                         | CERAMIC 0.01MF 50V            |
| CF201                | 1-527-968-71                         | FILTER, CERAMIC               |
| CF202                | 1-527-968-71                         | FILTER, CERAMIC               |
| CF203                | 1-527-968-71                         | FILTER, CERAMIC               |
| CF401                | 1-527-937-00                         | FILTER, CERAMIC               |
| CF402                | 1-527-981-00                         | FILTER, CERAMIC               |
| CNJ901               | 1-561-919-00                         | (G-AEP).....SOCKET, CONNECTOR |
| △CNP901.1-551-427-11 | (AEP,G-AEP)...CORD, POWER, EULO PLUG |                               |
| △CNP901.1-556-562-00 | (UK).....CORD, POWER                 |                               |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                |
|---------|--------------|----------------------------|
| CT401   | 1-141-180-00 | CAP, TRIMMER 15P           |
| CT404   | 1-141-180-00 | CAP, TRIMMER 15P           |
| CT407   | 1-141-180-00 | CAP, TRIMMER 15P           |
| CT408   | 1-141-180-00 | CAP, TRIMMER 15P           |
| D201    | 8-719-815-55 | DIODE 1S1555               |
| D301    | 8-719-901-52 | DIODE SLP151B              |
| D302    | 8-719-815-55 | DIODE 1S1555               |
| D303    | 8-719-815-55 | DIODE 1S1555               |
| D304    | 8-719-815-55 | DIODE 1S1555               |
| D305    | 8-719-815-55 | DIODE 1S1555               |
| D306    | 8-719-815-55 | DIODE 1S1555               |
| D401    | 8-719-912-27 | DIODE KV1226               |
| D402    | 8-719-815-55 | DIODE 1S1555               |
| D501    | 8-719-200-02 | DIODE 10E2                 |
| D502    | 8-719-200-02 | DIODE 10E2                 |
| D503    | 8-719-511-20 | DIODE S1V820               |
| D504    | 8-719-910-52 | DIODE HZ15-2L              |
| D505    | 8-719-910-65 | DIODE HZ6B2L               |
| D506    | 8-719-913-02 | DIODE HZ30-2L              |
| D507    | 8-719-815-55 | DIODE 1S1555               |
| D508    | 8-719-815-55 | DIODE 1S1555               |
| D509    | 8-719-815-55 | DIODE 1S1555               |
| D510    | 8-719-815-55 | DIODE 1S1555               |
| D511    | 8-719-815-55 | DIODE 1S1555               |
| D512    | 8-719-815-55 | DIODE 1S1555               |
| D513    | 8-719-815-55 | DIODE 1S1555               |
| D601    | 8-719-815-55 | DIODE 1S1555               |
| D602    | 8-719-815-55 | DIODE 1S1555               |
| D604    | 8-719-815-55 | DIODE 1S1555               |
| D605    | 8-719-815-55 | DIODE 1S1555               |
| D606    | 8-719-815-55 | DIODE 1S1555               |
| D608    | 8-719-815-55 | DIODE 1S1555               |
| D609    | 8-719-815-55 | DIODE 1S1555               |
| D610    | 8-719-815-55 | DIODE 1S1555               |
| D611    | 8-719-815-55 | DIODE 1S1555               |
| D612    | 8-719-815-55 | DIODE 1S1555               |
| FE101   | A-4344-029-A | (AEP,UK)....FRONT END, FM  |
| FE101   | A-4344-031-A | (G-AEP).....FRONT END, FM  |
| IC201   | 8-759-812-31 | IC LA1231N                 |
| IC301   | 8-759-833-90 | IC LA3390                  |
| IC401   | 8-759-812-45 | IC LA1245                  |
| IC601   | 8-759-201-03 | IC TD6109P                 |
| IC602   | 8-759-201-31 | IC TC9300F-007             |
| IFT201  | 1-404-400-00 | TRANSFORMER, DISCRIMINATOR |
| IFT202  | 1-404-401-00 | TRANSFORMER, DISCRIMINATOR |
| IFT401  | 1-404-413-00 | TRANSFORMER, IF            |

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in  $\mu$ F. Common capacitors are omitted. Refer to the following lists for their part numbers.
- MF:  $\mu$ F, PF:  $\mu$ F.

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH,  $\mu$ H :  $\mu$ H

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

- In each case, U :  $\mu$ , for example:  
UA....:  $\mu$ A...., UPA....:  $\mu$ PA...., UPC....:  $\mu$ PC,  
UPD....:  $\mu$ PD....

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                   |
|---------|--------------|-------------------------------|
| J901    | 1-507-843-00 | JACK, PIN 2P                  |
| L401    | 1-407-173-XX | MICRO INDUCTOR 220UH          |
| L901    | 1-402-011-21 | ANTENNA, FERRITE-ROD (LW/MW)  |
| LCD601  | 1-806-643-00 | DISPLAY PANEL, LIQUID CRYSTAL |
| LPF301  | 1-235-164-00 | (AEP,UK)...FILTER, LOW PASS   |
| LPF302  | 1-235-164-00 | (AEP,UK)...FILTER, LOW PASS   |
| PL901   | 1-518-511-00 | LAMP, PILOT                   |
| Q201    | 8-729-671-13 | TRANSISTOR 2SC710-13          |
| Q202    | 8-729-671-13 | TRANSISTOR 2SC710-13          |
| Q301    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q302    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q501    | 8-729-103-33 | TRANSISTOR 2SD1310            |
| Q502    | 8-729-177-43 | TRANSISTOR 2SD774             |
| Q503    | 8-729-177-43 | TRANSISTOR 2SD774             |
| Q504    | 8-729-117-54 | TRANSISTOR 2SA1175            |
| Q505    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q506    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q507    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q508    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q510    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| Q601    | 8-729-203-05 | TRANSISTOR 2SK30A-GR3         |
| Q602    | 8-729-203-05 | TRANSISTOR 2SK30A-GR3         |
| Q603    | 8-729-664-48 | TRANSISTOR 2SC1362-48         |
| Q604    | 8-729-664-48 | TRANSISTOR 2SC1362-48         |
| Q605    | 8-729-664-48 | TRANSISTOR 2SC1362-48         |
| Q606    | 8-729-664-48 | TRANSISTOR 2SC1362-48         |
| Q607    | 8-729-178-54 | TRANSISTOR 2SC2785            |
| R201    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R202    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R203    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R204    | 1-246-505-00 | CARBON 22K 5% 1/4W            |
| R205    | 1-246-505-00 | CARBON 22K 5% 1/4W            |
| R206    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R207    | 1-246-481-00 | CARBON 2.2K 5% 1/4W           |
| R208    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R209    | 1-246-505-00 | CARBON 22K 5% 1/4W            |
| R210    | 1-246-505-00 | CARBON 22K 5% 1/4W            |
| R211    | 1-246-461-00 | CARBON 330 5% 1/4W            |
| R212    | 1-246-481-00 | CARBON 2.2K 5% 1/4W           |
| R213    | 1-246-441-00 | CARBON 47 5% 1/4W             |
| R214    | 1-246-453-00 | CARBON 150 5% 1/4W            |
| R215    | 1-246-461-00 | CARBON 330 5% 1/4W            |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description         |
|---------|--------------|---------------------|
| R216    | 1-246-521-00 | CARBON 100K 5% 1/4W |
| R218    | 1-246-501-00 | CARBON 15K 5% 1/4W  |
| R219    | 1-246-505-00 | CARBON 22K 5% 1/4W  |
| R220    | 1-246-484-00 | CARBON 3K 5% 1/4W   |
| R221    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R222    | 1-246-505-00 | CARBON 22K 5% 1/4W  |
| R223    | 1-246-513-00 | CARBON 47K 5% 1/4W  |
| R224    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R225    | 1-246-449-00 | CARBON 100 5% 1/4W  |
| R229    | 1-246-521-00 | CARBON 100K 5% 1/4W |
| R230    | 1-246-515-00 | CARBON 56K 5% 1/4W  |
| R301    | 1-246-449-00 | CARBON 100 5% 1/4W  |
| R302    | 1-246-513-00 | CARBON 47K 5% 1/4W  |
| R303    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R304    | 1-246-519-00 | CARBON 82K 5% 1/4W  |
| R305    | 1-246-519-00 | CARBON 82K 5% 1/4W  |
| R306    | 1-246-425-00 | CARBON 10 5% 1/4W   |
| R307    | 1-246-473-00 | CARBON 1K 5% 1/4W   |
| R308    | 1-246-473-00 | CARBON 1K 5% 1/4W   |
| R309    | 1-246-425-00 | CARBON 10 5% 1/4W   |
| R310    | 1-246-481-00 | CARBON 2.2K 5% 1/4W |
| R311    | 1-246-481-00 | CARBON 2.2K 5% 1/4W |
| R312    | 1-246-485-00 | CARBON 3.3K 5% 1/4W |
| R313    | 1-246-485-00 | CARBON 3.3K 5% 1/4W |
| R314    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R315    | 1-246-529-00 | CARBON 220K 5% 1/4W |
| R316    | 1-246-477-00 | CARBON 1.5K 5% 1/4W |
| R317    | 1-246-501-00 | CARBON 15K 5% 1/4W  |
| R318    | 1-246-473-00 | CARBON 1K 5% 1/4W   |
| R319    | 1-246-515-00 | CARBON 56K 5% 1/4W  |
| R320    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R322    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R323    | 1-246-529-00 | CARBON 220K 5% 1/4W |
| R402    | 1-246-477-00 | CARBON 1.5K 5% 1/4W |
| R403    | 1-246-449-00 | CARBON 100 5% 1/4W  |
| R404    | 1-246-465-00 | CARBON 470 5% 1/4W  |
| R405    | 1-246-441-00 | CARBON 47 5% 1/4W   |
| R406    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R407    | 1-246-442-00 | CARBON 51 5% 1/4W   |
| R408    | 1-246-497-00 | CARBON 10K 5% 1/4W  |
| R409    | 1-246-449-00 | CARBON 100 5% 1/4W  |
| R410    | 1-246-485-00 | CARBON 3.3K 5% 1/4W |
| R411    | 1-246-489-00 | CARBON 4.7K 5% 1/4W |
| R413    | 1-246-521-00 | CARBON 100K 5% 1/4W |
| R414    | 1-246-521-00 | CARBON 100K 5% 1/4W |
| R415    | 1-246-521-00 | CARBON 100K 5% 1/4W |
| R416    | 1-246-443-00 | CARBON 56 5% 1/4W   |

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- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

## CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.

MF:μF, PF:μF.

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH : μH

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

In each case, U : μ, for example:  
 UA...: μA..., UPA...: μPA..., UPC...: μPC,  
 UPD...: μPD...

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description |      |    |      |
|---------|--------------|-------------|------|----|------|
| R417    | 1-246-545-00 | CARBON      | 1M   | 5% | 1/4W |
| R419    | 1-246-477-00 | CARBON      | 1.5K | 5% | 1/4W |
| R420    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R421    | 1-246-443-00 | CARBON      | 56   | 5% | 1/4W |
| R501    | 1-246-480-00 | CARBON      | 2K   | 5% | 1/4W |
| R502    | 1-246-485-00 | CARBON      | 3.3K | 5% | 1/4W |
| R504    | 1-246-509-00 | CARBON      | 33K  | 5% | 1/4W |
| R505    | 1-246-489-00 | CARBON      | 4.7K | 5% | 1/4W |
| R506    | 1-246-527-00 | CARBON      | 180K | 5% | 1/4W |
| R507    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R508    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R509    | 1-246-529-00 | CARBON      | 220K | 5% | 1/4W |
| R510    | 1-246-521-00 | CARBON      | 100K | 5% | 1/4W |
| R511    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R512    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R513    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R514    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R515    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R516    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R517    | 1-246-493-00 | CARBON      | 6.8K | 5% | 1/4W |
| R518    | 1-206-641-00 | METAL OXIDE | 110  | 5% | 2W F |
| R519    | 1-246-457-00 | CARBON      | 220  | 5% | 1/4W |
| R520    | 1-246-521-00 | CARBON      | 100K | 5% | 1/4W |
| R525    | 1-246-513-00 | CARBON      | 47K  | 5% | 1/4W |
| R601    | 1-246-519-00 | CARBON      | 82K  | 5% | 1/4W |
| R602    | 1-246-514-00 | CARBON      | 51K  | 5% | 1/4W |
| R603    | 1-246-514-00 | CARBON      | 51K  | 5% | 1/4W |
| R604    | 1-246-491-00 | CARBON      | 5.6K | 5% | 1/4W |
| R605    | 1-246-489-00 | CARBON      | 4.7K | 5% | 1/4W |
| R606    | 1-246-491-00 | CARBON      | 5.6K | 5% | 1/4W |
| R607    | 1-246-545-00 | CARBON      | 1M   | 5% | 1/4W |
| R608    | 1-246-545-00 | CARBON      | 1M   | 5% | 1/4W |
| R609    | 1-246-489-00 | CARBON      | 4.7K | 5% | 1/4W |
| R610    | 1-246-497-00 | CARBON      | 10K  | 5% | 1/4W |
| R611    | 1-246-501-00 | CARBON      | 15K  | 5% | 1/4W |
| R612    | 1-246-459-00 | CARBON      | 270  | 5% | 1/4W |
| R613    | 1-246-511-00 | CARBON      | 39K  | 5% | 1/4W |
| R614    | 1-246-491-00 | CARBON      | 5.6K | 5% | 1/4W |
| R615    | 1-246-467-00 | CARBON      | 560  | 5% | 1/4W |
| R616    | 1-246-489-00 | CARBON      | 4.7K | 5% | 1/4W |
| R617    | 1-246-493-00 | CARBON      | 6.8K | 5% | 1/4W |
| R618    | 1-246-467-00 | CARBON      | 560  | 5% | 1/4W |
| R619    | 1-246-489-00 | CARBON      | 4.7K | 5% | 1/4W |
| R620    | 1-246-504-00 | CARBON      | 20K  | 5% | 1/4W |
| R621    | 1-246-460-00 | CARBON      | 300  | 5% | 1/4W |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                                                                                                                       |
|---------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|
| R622    | 1-246-480-00 | CARBON 2K 5% 1/4W                                                                                                                 |
| R630    | 1-246-489-00 | CARBON 4.7K 5% 1/4W                                                                                                               |
| R631    | 1-246-489-00 | CARBON 4.7K 5% 1/4W                                                                                                               |
| RT201   | 1-226-238-00 | RES, ADJ, CARBON 50K                                                                                                              |
| RT301   | 1-228-505-00 | RES, ADJ, METAL GLAZE 10K                                                                                                         |
| RT302   | 1-226-238-00 | RES, ADJ, CARBON 50K                                                                                                              |
| S1      | 1-554-266-00 | SWITCH, ROTARY SLIDE                                                                                                              |
| S501    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S502    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S503    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S504    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S505    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S506    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S507    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S508    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S509    | 1-552-174-00 | SWITCH, PUSH                                                                                                                      |
| S901    | 1-553-072-21 | SWITCH, PUSH (AC POWER)                                                                                                           |
| T301    | 1-235-126-00 | (G-AEP)...ENCAPSULATED COMPONENT                                                                                                  |
| T401    | 1-405-953-00 | (AEP;SERIAL No. UP TO 500800,<br>(G-AEP;SERIAL No. UP TO 500600,<br>(UK;SERIAL No. UP TO 602000)<br>.....COIL, MW OSC             |
| T401    | 1-405-927-00 | (AEP;SERIAL No. 500801 AND LATER,<br>(G-AEP;SERIAL No. 500601 AND LATER,<br>(UK;SERIAL No. 602001 AND LATER)<br>.....COIL, MW OSC |
| T406    | 1-405-954-00 | (AEP;SERIAL No. UP TO 500800,<br>(G-AEP;SERIAL No. UP TO 500600,<br>(UK;SERIAL No. UP TO 602000)<br>.....COIL, LW OSC             |
| T406    | 1-405-914-00 | (AEP;SERIAL No. 500801 AND LATER,<br>(G-AEP;SERIAL No. 500601 AND LATER,<br>(UK;SERIAL No. 602001 AND LATER)<br>.....COIL, LW OSC |
| T901    | 1-447-560-00 | TRANSFORMER, POWER                                                                                                                |
| TM901   | 1-536-705-41 | (AEP,UK)....TERMINAL BOARD (ANTENNA)                                                                                              |
| TM901   | 1-536-743-00 | (G-AEP).....TERMINAL BOARD (ANTENNA)                                                                                              |
| XT601   | 1-527-995-00 | VIBRATOR, CRYSTAL                                                                                                                 |

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## CAPACITORS:

- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers.  
MF:μF, PF:μμF.

## RESISTORS

- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.

- F : nonflammable

## COILS

- MMH : mH, UH : μH

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

## SEMICONDUCTORS

- In each case, U : μ, for example:  
UA....: μA..., UPA....: μPA..., UPC....: μPC,  
UPD....: μPD...